EQUATIONS (24/08/2021)

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1.) When five is added to three more than a certain number, the result is 19. What is number.

$$x + 3 + 5 = 19$$
$$x + 8 = 19$$
$$\boxed{x = 11}$$

2.) If five is subracted from three times a certain number, the result is 10. What is the number.

$$3x - 5 = 10$$
$$3x = 15$$
$$\boxed{x = 5}$$

3.) When 18 is subtracted from 6 times a certain number, the result is -42. What is the number.

$$6x - 18 = -42$$
$$6x = -42 + 18$$
$$6x = -24$$
$$\boxed{x = -4}$$

4.) A certain number added twice to itself equals 96. What is number.

$$x + 2x = 96$$
$$3x = 96$$
$$\boxed{x = 32}$$

5.) A number plus itself, plus twice itself, plus 4 times itself, is equal to -104 what is the number?

$$x + x + 2x + 4x = -104$$
$$8x = -104$$
$$\boxed{x = -13}$$

6.) Sixty more than nine times a number is the same as two less than 10 times the number.

$$60 + 9x = -2 + 10x$$
$$60 + 9x = 10x - 2$$
$$\boxed{62 = x}$$

7.) Eleven less than seven times a number is five more than 6 times the number.

$$-11 + 7x = 5 + 6x$$
$$-11 - 5 = -x$$
$$16 = x$$

$$\boxed{x = 16}$$

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8·) Fourteen less than an eight times a number is three more than four times the number. what is the number.

$$-14 + 8x = 3 + 4x$$
$$-14 - 3 = 4x - 8x$$
$$+17 = + 4x$$
$$\boxed{x = 17/4}$$

9·) The sum of three consecutive integer is 108. what are the integers?

$x + x +$ are the three consecutive integers.

$x , \quad x+1, \quad x+2$

$$x + x + 1 + x + 2 = 108$$
$$3x + 3 = 108$$
$$3x = 105$$
$$\boxed{x = 35}$$

$$\boxed{\begin{array}{l} x + 1 = 35 + 1 = 36 \\ x + 2 = 35 + 2 = 37 \end{array}}$$

$$35, 36, 37.$$

(0) The sum of three consecutive integer is -126. what are the integers.

$x , x+1, x+2$ are the three consecutive integers.

$$x + x + 1 + x + 2 = -126$$
$$3x + 3 = -126$$
$$3x = -129$$
$$\boxed{x = -43}$$

$$\boxed{\begin{array}{l} x + 1 = -43 + 1 = -42 \\ x + 2 = -43 + 2 = -41 \end{array}}$$

$$-43, -42, -41$$

u) Find three consecutive integer such that the sum of the first, twice the second number and three times the third number is -76.

$$1^{st} \rightarrow x$$
$$2^{nd} \rightarrow 2(x+1) = 2x + 2$$
$$3^{rd} \rightarrow 3(x+2) = 3x + 6$$

$$x + 2x + 2 + 3x + 6 = -76$$
$$6x + 8 = -76$$
$$6x = -76 - 8$$
$$x = \frac{-84}{6}$$
$$\boxed{x = -14}$$

$$\boxed{\begin{array}{l} x + 1 = -14 + 1 = -13 \\ x + 2 = -14 + 2 = -12 \end{array}}$$

$$-14, -13, -12$$

12.) The sum of two consecutive even integers is 106. what are the integers.

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first number = x
Second number = x+2

$x + x+2 = 106$
$2x+2 = 106$
$2x = 104$
$\boxed{x = 52}$

$x+2 = 52 + 2 = 54$

52, 54

13.) The sum of three consecutive odd integer is 189. what are the integer.

$1^{st} \to x$
$2^{nd} \to x+2$
$3^{rd} \to x+4$

$x + x+2 + x+4 = 189$
$3x+6 = 189$
$3x = 189-6$
$3x = 183$
$\boxed{x = 61}$

$x+2 = 61+2 = 63$
$x+4 = 61+4 = 65$

61, 63, 65

14.) The sum of three consecutive odd integer is 255. What are the integers?

$1^{st} \to x$
$2^{nd} \to x+2$
$3^{rd} \to x+4$

$x + x+2 + x+4 = 255$
$3x+6 = 255$
$3x = 249$
$\boxed{x = 83}$

$x+2 = 83+2 = 85$
$x+4 = 83+4 = 87$

83, 85, 87.

15.) Find three consecutive odd integers such that the sum of first, two times the second, three times the third is 70.

$1^{st} \to x$
$2^{nd} \to (x+2)2 = 2x+4$
$3^{rd} \to 3(x+4) = 3x+12$

$x + 2x+4 + 3x+12 = 70$
$6x + 16 = 70$
$6x = 54$
$\boxed{x = 9}$

9, 11, 13 is answer.